

REMARKS

Claims 1-29 are pending in this application. The Office Action rejected claims 1-3, 8-13, 17-22 and 26-29. The Office Action indicated that claims 4-7, 14-16, and 23-25 are allowable. Applicant respectfully requests reconsideration of the rejected claims.

Claim Rejections

The Office Action rejected claims 1, 10, and 19 as being obvious in view of U.S. Patent No. 5,487,437 to Avitan in view of U.S. Patent No. 5,388,658 to Ando. The Office Action rejected claims 2, 11, and 20 as being obvious in view of Avitan, Ando, and U.S. Patent No. 5,168,953 to Naito. The Office Action rejected claims 3, 8, 12, 17, 22 and 26 in view of Avitan, and, further in view of U.S. Patent No. 5,157,611 to Ikeda. The Office Action rejected claims 13 and 21 as obvious in view of Avitan in view of a wheelchair's joystick. The Office Action rejected claims 28 and 29 as being anticipated by Ikeda.

Claims 1, 10, and 19

Claim 1 features a method of controlling a multi-wheel drive vehicle. In the method, a turning reference and a vehicle velocity are determined. A reference distance from the turning reference is determined. A wheel drive distance from turning reference is determined for each wheel drive. An independent velocity is determined for each wheel drive based on the vehicle velocity, the wheel drive distance, and the reference distance. Claims 10 and 19 are similar in these respects, but are directed to a system.

Applicant respectfully asserts that claim 1 is not obvious in view of the Avitan and Ando references, because claim 1 includes features that are not shown or suggested by these references. For example, neither Avitan nor Ando discloses or suggests determining an independent velocity for each wheel drive based on a vehicle velocity, a wheel drive distance, and a reference distance. The Office Action points out that this claim element is not disclosed by Avitan.

Avitan does not teach determining an independent velocity for each wheel drive based on the vehicle velocity, wheel drive distance, and reference distance...Office Action p. 2.

Applicant respectfully submits that the Ando patent does not cure this defect, because Ando also does not disclose or suggest determining an independent velocity for each wheel drive based on a vehicle velocity, a wheel drive distance (defined in claim 1 as the distance from the turning reference for each drive wheel), and a reference distance (defined in claim 1 as a distance from the turning reference). The Office Action states that column 2, lines 11-23, column 3, lines 41-55, and column 4, lines 9-19 and Figures 1, 5 and 6 disclose this claim element. Applicant respectfully disagrees. Ando discloses using parameters, such as forward velocity, desired steering angle, and lateral acceleration to compute angular velocities for drive wheels, but does not suggest using the recited wheel drive distance or the recited reference distance to determine the velocity for each wheel. Since claim 1 requires that the velocity for each drive wheel be based on both the wheel drive distance and the reference distance, Ando clearly does not render claim 1 obvious. Applicant respectfully submits that claim 1 is in condition for allowance. Since claims 10 and 19 are similar to claim 1 in these respects, Applicant also respectfully submits that claims 10 and 19 are in condition for allowance.

Claims 2-9, 11-18 and 20-27 depend from either claim 1, claim 10 or claim 19 and are also in condition for allowance at least for these same reasons.

Claim 28

Claim 28 features a method of driving a multiple wheel drive vehicle. In the method, an angle value associated with a steering position is read. A velocity is determined based on the angle value, a vehicle reference point's velocity and location from a predetermined origin, and at least one wheel drive base dimension for at least one wheel drive. The determined velocity is output to the at least one wheel drive.

Applicant respectfully asserts that claim 28 is not anticipated by the Ikeda reference because claim 28 includes features that are not shown or suggested by Ikeda. For example, Ikeda does not disclose or suggest determining a velocity for a wheel drive based on a vehicle

reference point's velocity and location from a predetermined origin and based on at least one wheel drive base dimension. The Office Action asserts that column 4, lines 20-45 of the Ikeda patent discloses determining a velocity based on "a vehicle reference point's velocity and location from a predetermined origin, and at least one wheel drive base dimension for at least one wheel drive." Office Action p. 5. Applicant respectfully points out that column 4, lines 20-45 of the Ikeda patent (or any other portion of the Ikeda patent) does not suggest determining a velocity based on a vehicle reference point's velocity and location from a predetermined origin, and at least one wheel drive base dimension for at least one wheel drive. In Ikeda, reference speeds are determined based on various parameters, including vehicle speed, transmitted steering angle, and yaw rate. (See Figure 1) However, Ikeda never suggests using a wheel drive base dimension or a vehicle reference points location from a predetermined origin. Therefore, it is respectfully submitted that claim 28 is in condition for allowance.

Claim 29

Claim 29 features a system for driving a multiple wheel drive vehicle. Applicant respectfully asserts that claim 29 is also not anticipated by the Ikeda reference because claim 29 also includes features that are not shown or suggested by Ikeda. As discussed above, Ikeda does not disclose or suggest a means for determining a velocity for a wheel drive based on a control signal, a vehicle reference point's velocity and location from a predetermined origin and at least one wheel drive base dimension. Therefore, it is respectfully submitted that claim 29 is in condition for allowance.

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Respectfully submitted,



Kenneth J. Smith, Reg. No. 45,115
Customer No. 24024
Telephone No. 216-622-8674